

STATEMENT OF WORK
Anaerobic Digester, Controlled Temperature (366)
Minnesota

These deliverables apply to this individual practice. For other planned practice deliverables refer to those specific Statements of Work.

DESIGN

Deliverables:

1. Design documentation that will demonstrate that the criteria in NRCS practice standard have been met and are compatible with other planned and applied practices.
 - a. Compliance with NRCS national and state utility safety policy (NEM Part 503-Safety, Subpart A - Engineering Activities Affecting Utilities 503.00 through 503.06)
 - b. List of associated FOTG conservation practices included in this project (i.e. 313 Waste Storage Facility, 634 Manure Transfer, etc.).
 - c. Practice standard criteria related computations and analyses to develop plans and specifications including but not limited to:
 - i. Geology and Soil Mechanics (NEM Subpart 531a)
 - ii. Size Computations
 - iii. Structural, Mechanical and Appurtenance design
 - iv. Environmental Considerations (e.g. air quality, bio-security)
 - d. Safety Considerations (NEM Part 503-Safety, Subpart A, 503.10 through 503.12)
2. Adequate plan view, profiles, cross sections, details, and specifications to ensure that the project can be properly constructed.
 - a. A plan view of the site which includes but is not limited to the following items:
 - i. Location of outdoor lots and practices to be installed
 - ii. Soil boring locations
 - iii. Water well locations
 - iv. Adequate topographic detail to show how clean and contaminated runoff will be addressed when this is a factor on the design
 - v. Agitation and pump-out locations.
3. Design Report and Inspection Plan as appropriate (NEM Part 511, Subpart B Documentation, 511.11 and Part 512, Subpart D Quality Assurance Activities, 512.30 through 512.32)
 - a. Design report shall include, but is not limited to the following:
 - i. Summary of project objectives and work to be completed.
 - ii. Current and planned animal numbers, biogas production and use, waste characteristics and minimum storage volume.
 - iii. Liner and water table control requirements.
 - iv. Structural loading assumptions (such as wheel loads on or near tanks).
 - b. The inspection plan must describe the type and frequency of testing and inspection and the qualifications of the person doing the work.
4. Operation and Maintenance Plan
5. Certification that the design meets practice standard criteria and comply with applicable laws and regulations (NEM Subpart A, 505.03 (a) (3))
6. Design modifications during installation as required.
7. Itemized Engineer's Cost Estimate.

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INSTALLATION

Deliverables

1. Documentation of pre-construction conference with client and contractor.
2. Verification that client has obtained required permits
3. Staking and layout according to plans and specifications including applicable layout notes
4. Installation inspection (according to inspection plan as appropriate)
 - a. Actual materials used (Part 512, Subpart D Quality Assurance Activities, 512.33)
 - b. Inspection records
 - c. Facilitate required design or cost modifications with client, original designer, permitting and funding agencies.
5. Advise client/NRCS on compliance issues with all federal, state, tribal, and local laws, regulations and NRCS policies during installation
6. Certification that the installation process and materials meets design and permit requirements.

CHECK OUT

Deliverables

1. As-Built documentation.
 - a. Extent of practice units applied
 - b. Drawings
 - c. Final quantities\
2. Certification that the installation meets NRCS standards and specifications and is in compliance with permits (NEM Subpart A, 505.03 (c) (1)).
3. Completion report in accordance with permit requirements.
4. Progress reporting.

REFERENCES

- NRCS Field Office Technical Guide (eFOTG), Section IV, Conservation Practice Standard - Anaerobic Digester, Controlled Temperature, 366
- NRCS National Engineering Manual (NEM).
- NRCS National Environmental Compliance Handbook
- NRCS Cultural Resources Handbook